

temperatures were the lowest on record at: Key West, 69; Lander, 29; Pysht, 37; Fort Canby, 44; Olympia, 35.

The *greatest daily range of temperature and the extreme monthly range* are given for each of the regular Weather Bureau stations in Table I, which also gives data from which may be computed the extreme monthly ranges for each station. The largest values among the greatest daily ranges were: Carson City and Baker City, 46; Idaho Falls and Tucson, 45; Havre and Port Crescent, 44. The smallest values were: Port Eads, 8; Galveston, 13; Hatteras, 14; Key West, 17. Among the extreme monthly ranges the largest values were: Tucson, 68; Fresno, 62; Idaho Falls, 60. The smallest values were: Port Eads, 11; Galveston, 18; Corpus Christi, 20; Key West, 21.

The *accumulated monthly departures* from normal temperatures from January 1 to the end of the current month are given in the second column of the following table, and the average departures are given in the third column, for comparison with the departures of current conditions of vegetation from the normal conditions.

Districts.	Accumulated departures.		Districts.	Accumulated departures.	
	Total.	Average.		Total.	Average.
Upper Lakes	+ 1.5	+ 0.2	New England.....	- 1.7	- 0.3
North Dakota	+ 7.8	+ 1.3	Middle Atlantic.....	- 0.7	- 1.6
Missouri Valley	+ 2.6	+ 0.4	South Atlantic.....	- 16.7	- 2.8
Northern plateau	+ 8.5	+ 1.4	Florida Peninsula.....	- 11.7	- 3.0
North Pacific.....	+ 0.4	+ 0.1	East Gulf.....	- 18.4	- 3.1
			West Gulf.....	- 16.4	- 2.7
			Ohio Valley and Tenn.....	- 13.5	- 2.2
			Lower Lakes.....	- 4.8	- 0.8
			Upper Mississippi.....	- 2.3	- 0.4
			Northern slope.....	- 5.9	- 1.0
			Middle slope.....	- 4.3	- 0.7
			Southern slope (Abilene).....	- 15.5	- 2.6
			Southern plateau.....	- 5.0	- 0.8
			Middle plateau.....	- 6.6	- 1.1
			Middle Pacific.....	- 1.3	- 0.2
			South Pacific.....	- 1.9	- 0.3

MOISTURE.

The *quantity of moisture* in the atmosphere at any time may be expressed by means of the weight contained in a cubic foot of air, or by the tension or pressure of the vapor, or by the temperature of the dew-point. The mean dew-points for each station of the Weather Bureau, as deduced from observations made at 8 a. m. and 8 p. m., daily, are given in Table I.

The *rate of evaporation* from a special surface of water on muslin at any moment determines the *temperature of the wet-bulb thermometer*. An evaporimeter may be made to record the quantity of water evaporated from a similar surface during any interval of time. This, therefore, would sum up or integrate the effect of those influences that determine the temperature as given by the wet bulb; from this evaporation the *average humidity of the air* during any given interval of time may be deduced.

The *sensible temperature* experienced by the human body and attributed to the atmosphere depends not merely upon the temperature of the air, but equally upon the dryness and the wind, and is apparently the same as the temperature of the wet-bulb thermometer as obtained by the whirling apparatus used in the shaded shelter. The temperature of the wet-bulb thermometer and its depression below the dry bulb are the fundamental data for all investigations into the relation between human physiology and the atmosphere. In order to present a monthly summary of the atmospheric conditions from a hygienic and physiological point of view, Table VIII has been prepared, showing the maximum, minimum, and mean readings of the wet-bulb thermometer at 8 a. m. and 8 p. m., seventy-fifth meridian time.

PRECIPITATION.

[In inches and hundredths.]

The *distribution of precipitation* for the current month, as determined by reports from about 2,500 stations, is exhibited on Chart III. The numerical details are given in Tables I, II, and III. The precipitation was heaviest, 3 to 13 inches, in the central and southern portion of the country, but least, averaging less than 0.5, on the Rocky Mountain slope and Pacific coast.

The *diurnal variation* is shown by Table XII, which gives the total precipitation for each hour of seventy-fifth meridian time, as deduced from self-registering gauges kept at about 43 regular stations of the Weather Bureau; of these 37 are float gauges and 6 are weighing gauges.

The *normal precipitation* for each month is approximately shown in the Atlas of Weather Bureau Bulletin C, entitled "Rainfall and Snow of the United States, compiled to the end of 1891, with annual, seasonal, monthly, and other charts."

The *current departures* from the normal precipitation are given in Table I, which shows that precipitation was in excess in the Gulf States, the northern and middle slopes, and especially the southern Atlantic slope; it was deficient throughout the Pacific States, the northern plateau region, upper Mississippi Valley, Lake region, Ohio Valley, and Atlantic States. The large departures from the monthly normal were: Excesses: Abilene, 5.7; Little Rock, 4.7; New Orleans, 3.0. Deficits: Dubuque, 4.0; Indianapolis, 3.6; Grand Haven and Sydney, 3.4; Davenport, 3.2; Galveston, Wilmington, and Detroit, 3.1.

The *average departure* for each district is also given in Table I. By dividing these by the respective normals the following corresponding percentages are obtained (precipitation is in excess when the percentages of the normal exceeds 100).

Above the normal: East Gulf, 115; west Gulf, 129; North Dakota, 122; Missouri Valley, 102; northern slope, 135; middle slope, 123; Abilene (southern slope), 311.

Normal: Southern Pacific, 0.

Below the normal: New England, 68; middle Atlantic, 72; south Atlantic, 75; Florida Peninsula, 80; Ohio Valley and Tennessee, 75; lower Lake, 38; upper Lake, 60; upper Mississippi, 69; southern plateau, 60; middle plateau, 55; northern plateau, 32; north Pacific, 41; middle Pacific, 3.

The *total accumulated monthly departures* from normal precipitation from January 1 to the end of the current month are given in the second column of the following table; the third column gives the ratio of the current accumulated precipitation to its normal value.

Districts.	Accumulated departures.		Districts.	Accumulated departures.	
	Inches.	Per ct.		Inches.	Per ct.
<i>Excesses.</i>			<i>Deficits.</i>		
South Atlantic.....	+ 0.90	103	New England.....	- 4.10	81
North Dakota.....	+ 1.00	110	Middle Atlantic.....	- 1.50	93
Northern slope.....	+ 0.90	111	Florida Peninsula.....	- 0.70	96
Abilene (Southern slope).....	+ 1.20	108	East Gulf.....	- 0.20	96
Southern plateau.....	+ 0.30	105	West Gulf.....	- 2.80	88
			Ohio Valley and Tenn.....	- 7.30	71
			Lower Lakes.....	- 6.10	66
			Upper Lakes.....	- 4.10	74
			Upper Mississippi.....	- 6.60	63
			Missouri Valley.....	- 3.90	77
			Middle slope.....	- 2.20	81
			Middle plateau.....	- 0.60	92
			Northern plateau.....	- 8.10	70
			North Pacific.....	- 0.30	99
			Middle Pacific.....	- 2.30	88
			South Pacific.....	- 2.30	80

The *years of greatest and least precipitation* for June are given in the REVIEW for June, 1894. The precipitation for the current month was the greatest on record at: Abilene, 8.40; Pueblo, 2.09; Rapid City, 6.22. It was the least on record at: